

Kuo Patent

Key Features:

1. Both Zone 2 and Zone 3 binding partner is specific for analyte/label complex
2. Binding at zone 2 is high at low analyte concentrations.
3. As analyte concentration increases, Zone 2 saturates and Zone 3 increases.
4. The ratio of zone 2 to zone 3 allows improved reflectance readings due to optimization of reflectance dynamic range.
5. The concentration reference assay in zone 4 is for a different analyte entirely and is used to correct for sample dilution when urine is used.

Fig 1

Assay strip

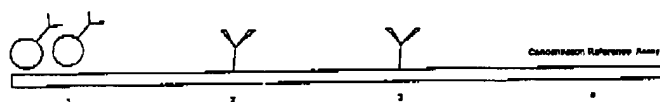


Fig 2

Sample introduction

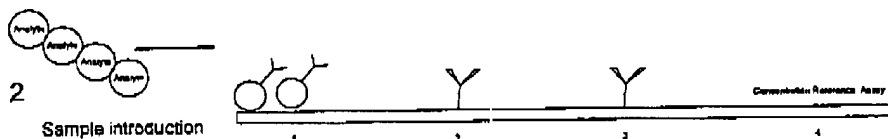


Fig 3

Analyte/labeled binding partner complex

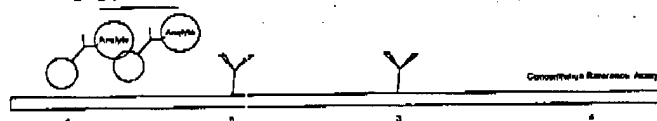


Fig 4

Result at low analyte concentration

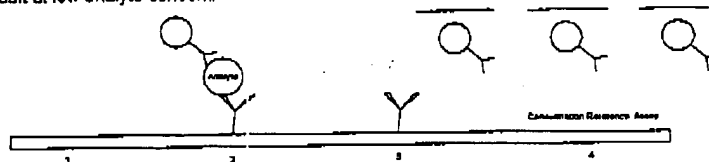
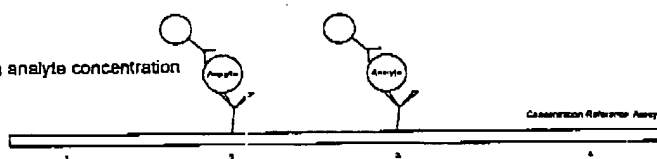


Fig 5

Result at high analyte concentration



RAMP System

Key Features:

1. Zone 2 binding partner is specific for analyte
2. Zone 3 capture material will NOT bind to analyte; is directed to particle
3. Zone 2 label is proportional to analyte concentration
4. Zone 3 label is CONSTANT, subject only to assay variability not to antigen concentration
5. The ratio of zone 2 to zone 2+3 corrects for assay variability in zone 2 that is seen in zone 3 and is not affected by antigen concentration

Fig 1

Assay strip

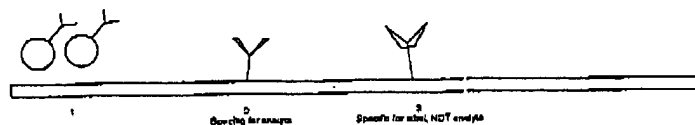
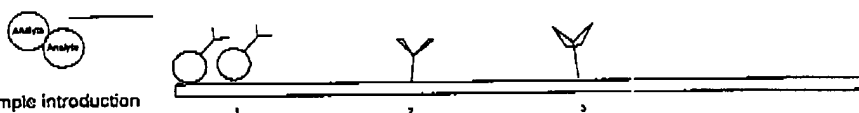


Fig 2

Sample introduction



Analyte/labeled binding partner complex

Fig 3

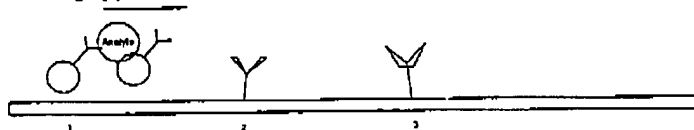


Fig 4

Result at low analyte concentration

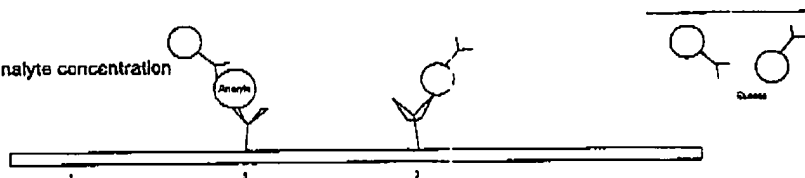


Fig 5

Result at high analyte concentration

